

REMARKS

Claims 1-7 and 57 are pending in the present application. In the Office Action dated June 3, 2005, the Examiner rejected claims 1, 2, 4 and 5 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,863,555 to Ito ("Ito"). Claim 3 was rejected under 35 U.S.C. 103(a) as being unpatentable over Ito as applied to claim 2 above, and further in view of U.S. Patent No. 6,726,495 to Hirschmann ("Hirschmann"). Claim 6 was rejected under 35 U.S.C. 103(a) as being unpatentable over Ito as applied to claim 1 above, and further in view of the admitted prior art. Claims 7 was rejected under 35 U.S.C. 103(a) as being unpatentable over Ito as applied to claim 1 above, and further in view of U.S. Patent No. 6,848,938 to Miyamoto ("Miyamoto").

The embodiments disclosed in the present application will now be discussed in comparison to the cited references. Of course, the discussion of the disclosed embodiments, and the discussion of the differences between the disclosed embodiments and the cited references, does not define the scope or interpretation of any of the claims. Instead, such discussed differences merely help the Examiner appreciate important claim distinctions discussed thereafter.

The present invention is directed to an apparatus and method for coupling electrical devices through utilization of a socket connector to couple electrical plugs to sockets, which may be mounted on a circuit board or, alternatively, on an end of a connecting cable. The socket connector includes a body having an inner surface defining at least one socket with a top and a bottom through which the plug and the silo may be inserted. The socket is configured to receive an electrical plug, a socket silo and a rolling latch on the plug. The inner surface of the socket may also include one or more elongated pawl receiving recesses sized and configured to receive a pawl disposed on the rolling latch on the plug. The elongated pawl recess formed in the inner surface is oriented so that a longitudinal axis thereof extends between the top and bottom of the socket. The position and orientation of the pawl receiving recess provides for a greater amount of engagement area between the pawl of the rolling latch positioned in the socket and the inner surface. This helps prevent the plug from being pulled out of the socket inadvertently.

The Examiner has cited Ito for disclosing a multi-contact connector. Figures 5 and 6 of Ito shows a connector having an outlet case 4 having two hook engaging units 12 formed therein. Each of the hook engaging units 12 are elongated with a longitudinal extent thereof extending transversely to the height of the outlet case 4. As best shown in Figure 6, hooks 11 on a plug P engage the hook engaging units 12 to help hold the plug P in the socket. To the extent that the outlet case 4 has an inner surface that defines a socket, the hook engaging units 12 do not have their longitudinal axis extend between a top of the outlet case 4 to the bottom of the outlet case 4.

Turning now to the claims, the patentably distinct differences between the cited references and the claim language will be specifically pointed out. As amended, claim 1 recites “[a] multi-contact connector for coupling a plug to a socket silo comprising: a body including an inner surface defining at least one socket having a top and bottom, the at least one socket configured to receive the plug, socket silo and at least one rolling latch on the plug, the interior surface including at least one elongated pawl receiving recess therein accessible through the top and bottom and configured to receive a pawl of the at least one rolling latch, a longitudinal axis of the at least one elongated pawl receiving recess extending between the top and bottom of the at least one socket.” Ito and the other cited references do not disclose or fairly suggest a body having an inner surface defining a socket, the inner surface having at least one pawl receiving recess that is oriented with its longitudinal axis extending between a top and bottom of the socket. In particular, the connector of Ito teaches away from claim 1 by positioning the hook engaging units 12 with their respective longitudinal axes extending in a direction that is not between a top and bottom of the outlet case 4.

Claims depending from claim 1 are also allowable due to depending from an allowable base claim and further in view of the additional limitations recited in the dependent claims.

It is also noted that claim 6 is amended to provide a proper antecedent basis for the terms socket and plug. Claim 7 has been amended and its scope is now broader because the limitations “an opening” was deleted.

All of the claims (Claims 1-7 and 57) remaining in the application are now clearly allowable. Favorable consideration and a timely Notice of Allowance are earnestly solicited.

Respectfully submitted,

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